

be helped by blowing the Coals a little, or pouring on new Lead that is hotter: but the cooler the Lead, the larger the Shot; and the hotter, the smaller; when it is too hot, the drops will crack and fly; then you must stop pouring on new Lead, and let it cool; and so long as you observe the right temper of the heat, the Lead will constantly drop into very round Shot, without so much as one with a tail in many pounds.

When all is done, take your Shot out of the Pail of water, and put it in a Frying-pan over the fire to dry them, which must be done warily, still shaking them that they melt not; and when they are dry you may separate the small from the great, in Pearl Sives made of Copper or Lattin let into one another, into as many sizes as you please. But if you would have your Shot larger then the Trencher makes them, you may do it with a Stick, making them trickle out of the Ladle, as hath been said.

If the Trencher be but toucht a very little when the Lead stops from going through it, and be not too cool, it will drop again, but it is better not to touch it at all. At the melting of the Lead take care that there be no kind of Oyl, Grease, or the like, upon the Pots, or Ladles, or Trencher.

The Chief cause of this Globular Figure of the Shot, seems to be the Auripigmentum; for, as soon as it is put in among the melted Lead, it loses its shining brightness, contracting instantly a grayish film or skin upon it, when you scum it to make it clean with the Ladle. So that when the Air comes at the falling drop of the melted Lead, that skin constricts them every where equally: but upon what account, and whether this be the true cause, is left to further disquisition,

Much after this same manner, when the Air is exceeding cold through which it passes, do we find the drops of Rain, falling from the Clouds, congealed into round Hail-stones by the freezing Ambient.

To which may be added this other known Experiment, That if you gently let fall a drop of water upon small sand or dust, you shall find, as it were, an artificial round stone quickly generated. I cannot upon this occasion omit the mentioning of the strange kind of Grain, which I have observed in a stone brought from Kettering in Northamptonshire, and therefore called by Masons Kettering-Stone, of which see the Description.

Which

Which brings into my mind what I long since observed that are struck out of a Steel. For having a great left behind, after the Spark was gone out, I purposed a very white piece of Paper, and observing diligently the cubus sparks went out, I found a very little black the point of a Pin, which through a Microscope appeared a round Ball, looking much like a polished ball of I was able to see the Image of the window reflected here stay (having done it more fully in another particular Reasons of it, but shall only hint, that a small parcel of the Steel, which by the violence stroke (most of which seems to be imprest upon the made so glowing hot, that it is melted into a Vitruvian ent Air is thrust into the form of a Ball.

A Fifth thing which I thought worth Examination motion of all kind of Springs, might not be red whereby the included heterogeneous fluid seems to whereby two Solids, as Marbles, or the like, are thrust by the ambient fluid.

A Sixth thing was, Whether the Rising and Ebulition of Springs and Fountains (which lie much higher from Earth then the Superficies of the Sea, from whence it may not be explicated by the rising of Water in a Sea-water being strained through the Pores or Crannies as it were, included in little Pipes, where the pressure so great a power to resist its rising: But examining in it several difficulties almost irremovable, I thought would much more naturally and conceivably explain this following Experiment: I took a Glass-Tube, described in the sixth Figure, and chusing two heterogeneous as Water and Oyl, I poured in as much Water as high as A B, then putting in some Oyl into the Tube superficies A of the Water to E, and B I raised to high perpendicularly as the superficies of the Oyl is wherefore the proportion of the gravity of these is G H to F E.

This Experiment I tried with several other Liquors with fresh Water and Salt (which I made by dissolving Water) which two though they are nothing heterogeneous they would perfectly mix one with another, I made experiment: Nay, letting the Tube wherein I tried the Experiment many dayes, I observed them not to mix; but the Water was rather more then less elevated above that of the proportion of the gravity of Sea-water, to that of the Water, as is to be seen in the Experiment of Stevinus and Varenius, and as I have since making trial my self, is as 46. to 45. that is, 46. C

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